We Claim:

1. A local area network utilizing a plurality of discrete multitone transceivers comprising:

a master discrete multitone transceiver capable of communicating with a central office;

a slave discrete multitone transceiver in communication with the master discrete multitone transceiver; and

a set of carriers providing a communication link between the master discrete multitone transceiver and the slave discrete multitone transceiver, wherein the slave discrete multitone transceiver and the master discrete multitone transceiver coordinate the set of carriers.

2. The network in claim 1 wherein the set of carriers do not interfere with communication between the master discrete multitone transceiver and the central office discrete multitone transceiver due to symbol orthogonality.

3. The network of claim 1 wherein the master discrete multitone transceiver broadcasts a timing reference providing the slave discrete multitone transceiver a local area network timing reference to adjust a receive and a transmit sampling clock.

4. The network of claim 1 wherein the slave discrete multitone transceiver aligns a first transmit symbol boundary with a second transmit symbol boundary from the master discrete multitone transceiver.

5. The network of claim 1 wherein the local area network further comprises a plurality of slave discrete multitone transceivers.

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6. The network of claim 5 wherein the plurality of slave discrete multitone transceivers are in communication and in communication with the master discrete multitone transceiver utilizing the set of carriers.

7. The network of claim 1 wherein the master discrete multitone transceiver comprises an asymmetrical digital subscriber line transceiver remote unit.

8. The network of claim 1 wherein the slave discrete multitone transceiver comprises an asymmetrical digital subscriber line transceiver remote unit.

9. The network of claim 1 wherein the master discrete multitone transceiver is in communication with a discrete multitone transceiver located at the central office utilizing a set of carriers other than the set of carriers used for local area networking.

10. A local area network system utilizing a plurality of DMT remote units in communication with a central office providing digital subscriber line service comprising:

a DMT transceiver central office unit;

a master DMT transceiver remote unit connected to a local area network;

a set of DMT carriers providing a DMT communication link between the DMT transceiver central office unit and the master DMT transceiver remote unit;

a slave DMT transceiver remote unit connected to the local area network; and

a set of local area network carriers providing a local area network communication link between the slave DMT transceiver remote unit and the master DMT transceiver remote unit using timing derived from the set of DMT carriers providing a communication link between the master DMT transceiver remote unit and the DMT

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transceiver central office unit.

11. The network in claim 10 wherein the set of local area network carriers providing a local area network communication link between the slave DMT transceiver remote unit and the master DMT transceiver remote unit are adjacent to the set of DMT carriers providing a DMT communication link between the DMT transceiver central office unit and the master DMT transceiver remote unit.

12. A local area network system utilizing a plurality of ADSL remote units in communication with a central office providing digital subscriber line service comprising:

an ADSL transceiver central office unit;

a master ADSL transceiver remote unit connected to a local area network;

a plurality of ADSL carriers having frequencies within an ADSL frequency spectrum providing an ADSL communication link between the ADSL transceiver central office unit and the master ADSL transceiver remote unit;

a slave ADSL transceiver remote unit connected to the local area network; and

a set of local area network carriers providing a local area network communication link between the slave ADSL transceiver remote unit and the master ADSL transceiver remote unit using timing derived from the plurality of ADSL carriers providing a communication link between the master ADSL transceiver remote unit and the ADSL transceiver central office unit.

13. The network in claim 12 wherein the set of local area network carriers providing the local area network communication link between the slave ADSL transceiver

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remote unit and the master ADSL transceiver remote unit are adjacent to the plurality of ADSL carriers providing the ADSL communication link between the ADSL transceiver central office unit and the master ADSL transceiver remote unit.

14. The network in claim 12 wherein the ADSL frequency spectrum is comprised of the frequencies between 25 kHz and 552 kHz.

15. The network in claim 12 wherein the set of local area network carriers utilizing a frequency spectrum is comprised of the frequencies between 552 kHz and 1.104 MHz.

16. The network in claim 12 wherein the set of local area network carriers utilize a bin spacing equal to the bin spacing of the set of DMT carriers providing a DMT communication link between the DMT transceiver central office unit and the master DMT transceiver remote unit.

17. The network in claim 12 wherein the set of local area network carriers are coordinated by the slave DMT transceiver remote unit and the master DMT transceiver remote unit.

18. A network system providing a local area network utilizing a plurality of DSL transceiver unit remotes in communication with a central office providing digital subscriber loop service comprising:

a DSL transceiver central office unit;

a master DSL transceiver remote unit connected to the local area network;

a set of DSL carriers having frequencies within a DSL frequency spectrum providing a DSL communication link between the DSL transceiver central office unit and the master DSL transceiver remote unit;

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a slave DSL transceiver remote unit connected to the local area network; and

a set of local area network carriers utilizing carriers within the DSL frequency spectrum providing a local area network communication link between the slave DSL transceiver remote unit and the master DSL transceiver remote unit.

19. The network in claim 18 wherein the DSL frequency spectrum is comprised of carriers having center frequencies between 25 kHz and 552 kHz.

20. The network in claim 18 wherein the set of local area network carriers within the set of DSL carriers are idle in relation to the DSL communication link between the DSL transceiver central office unit and the master DSL transceiver remote unit.

21. The network in claim 18 wherein the set of local area network carriers are coordinated by the slave DSL transceiver remote unit and the master DSL transceiver remote unit.

22. A DMT transceiver remote unit for communicating with at least one other DMT transceiver remote unit and capable of communicating with a central office comprising:

a DMT transceiver capable of communicating with the central office and with the at least one other DMT transceiver remote unit, wherein the DMT transceiver generates and receives time domain signals having a set of carriers; and

a controller in connection with the DMT transceiver, wherein the controller allocates a set of local area network carrier frequencies providing communication with the at least one other DMT transceiver remote unit.

23. The apparatus of Claim 22 wherein the controller provides a local area

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network timing reference for the at least one other DMT transceiver remote unit when the central office is unavailable.

24. The apparatus of Claim 22 wherein the DMT transceiver remote unit is adaptable to exist as a master DMT transceiver remote unit or a slave DMT transceiver remote unit.

25. The apparatus of Claim 22 wherein the set of local area network carrier frequencies include idle carrier frequencies within a DSL frequency spectrum.

26. The apparatus of Claim 22 wherein the set of local area network carrier frequencies are within a local area network frequency spectrum adjacent to a DSL frequency spectrum.

27. A method for communicating with at least one other DSL transceiver remote unit and capable of communicating with a central office comprising:

determining if a DSL transceiver remote unit having a DMT transceiver is a master, and if so,

determining if there is communication with a DSL central office unit, and if so,

locking a transmit and a receive sampling clock of the DMT to a transmit sampling clock of the central office;

aligning a first DMT transmit symbol of the DMT transceiver with a second DMT transmit symbol received from the central office; and

coordinating a set of local area network carrier frequencies with the at least one other DSL transceiver remote unit providing a communication link with the at least one other DSL transceiver remote unit.

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28. The method of Claim 27 further comprising:

determining if there is communication with a DSL central office unit, and if not,

transmitting a network timing reference providing a local area network timing reference for the at least one other DSL transceiver remote unit; and

coordinating a set of local area network carrier frequencies with the at least one other DSL transceiver remote unit providing communication with the at least one other DSL transceiver remote unit.

29. The method of claim 27 further comprising:

determining if the DSL transceiver remote unit having a DMT transceiver is a master, and if not,

locking a transmit and a receive sampling clock of the DMT transceiver to a transmit sampling clock of the DSL transceiver unit central office

aligning a first DMT transmit symbol of the DMT transceiver with a second DMT transmit symbol received from the master DSL transceiver remote unit; and

coordinating a set of local area network carrier frequencies with the at least one other DSL transceiver remote unit providing a communication link with the at least one other DSL transceiver remote unit.

30. The method of claim 27 further comprising:

determining if the DSL transceiver remote unit having a DMT transceiver is a master, and if not,

locking a transmit and a receive sampling clock of the DMT transceiver to a transmit sampling clock of the master DSL transceiver remote unit;

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aligning a first DMT transmit symbol of the DMT transceiver with a second DMT transmit symbol received from the master DSL transceiver remote unit; and

coordinating a set of local area network carrier frequencies with the at least one other DSL transceiver remote unit providing a communication link with the at least one other DSL transceiver remote unit.

31. The method of claim 27 further comprising:

determining if the DSL transceiver remote unit having a DMT transceiver is a master, and if not,

locking a transmit and a receive sampling clock of the DMT transceiver to a transmit sampling clock of the master DSL transceiver remote unit;

aligning a first DMT transmit symbol of the DMT transceiver with a second DMT transmit symbol received from the DSL transceiver unit central office; and

coordinating a set of local area network carrier frequencies with the at least one other DSL transceiver remote unit providing a communication link with the at least one other DSL transceiver remote unit.

32. The method of claim 27 further comprising:

determining if the DSL transceiver remote unit having a DMT transceiver is a master, and if not,

locking a transmit and a receive sampling clock of the DMT transceiver to a transmit sampling clock of the DSL transceiver unit central office;

aligning a first DMT transmit symbol of the DMT transceiver with a second DMT transmit symbol received from the DSL transceiver unit central office; and

coordinating a set of local area network carrier frequencies with the at least

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one other DSL transceiver remote unit providing a communication link with the at least one other DSL transceiver remote unit.

33. A computer readable medium having stored therein instructions for causing a central processing unit to execute the method of claim 27.

34. A local area network utilizing a plurality of discrete multitone transceivers comprising:

a first discrete multitone transceiver;

a second discrete multitone transceiver in communication with the first discrete multitone transceiver; and

a set of carriers providing a communication link between the first discrete multitone transceiver and the second discrete multitone transceiver, wherein the slave discrete multitone transceiver and the master discrete multitone transceiver coordinate the set of carriers.

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